(b) Yes, Sir. The NPBD is being implemented in all districts of the State of Uttar Pradesh including the districts of Almora and Nainital.

(c) The NPBD is expected to help eligible families of these hilly areas to recycle cattle dung through biogas plants for produtcion of fuel-gas as well as enriched manure, besides reducing the drudgery of woman and children and improving health and hygiene.

(d) Biogas plants are being set up mostly in rural areas and not in cities. A total of 192 and 4189 family type biogas plants have been set up in the districts of Almora (including Ranikhet area) and Nainital in Uttar Pradesh during 1981-82 to 1991-92 under the NPBD. The steps already taken to set up more plants in Kumaon hilly areas include allocation of a higher target of 200 plants, provision of higher rates of Central subsidy and promotion of a new rubberised nylon fibre biogas plant specifically for these areas, besides all other provisions available under NPBD.

Installation of Solar thermal power Generation

4788. DR. NARREDDY THULASI REDDY: Will the PRIME MINISTER be pleased to state:

(a) what are the results of the experimental 50 K.W. Solar Thermal Power Generation System at Gwalpahari village in Gurgaon district in Haryana;

(b) whether there is any proposal to instal solar thermal power projects in the country and in Andhra Pradesh during Eighth Five Year Plan;

(c) if so, the details thereof; and

(d) if not, the reasons therefor?

THE MINISTER OF STATE OF THE MINISTRY OF PLANNING AND PROGRAMME IMPLEMENTATION AND MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI SUKH RAM): (a) The 50 KW Solar Thermal Power Plant at Gwalpahari, Gurgaon District in Haryana is being run on an experimental basis to study the performance. Some of the imported critical components such as reflectors, receiver tube, switches etc. which either got demaged or developed defects during the last three years are being indigenously developed. Even with some of these defective components the plant is being run, whenever the sun conditions are favourable, though at partial loads. The experience gained in design, commissioning and development of various components may help in putting up large capacity solar thermal power plant based on this technology in the country in future.

(b) A proposal for setting up a 30 MW Solar Thermal Power Plant at Mathania Jodhpur was received from Rajasthan Government. The proposal has been examined by Central Electricity Authority which has not found it cost effective. However, no proposal has peen received from Andhra Pradesh.

(c) and (d) Does not arise.

Targets for Solar cookers

4789. DR. NARREDDY THULASI REDDY: Will the PRIME MINISTER be pleased to state:

(a) what were the targets and achievement of Solar Cookers during the year 1991-92 in the country particularly in Andhra Pradesh;

(b) what are the targets fixed for 1991-92 in the country and in Andhra Pradesh;

(c) whether any survey has been conducted regarding the utility of Solar Cooker; and

(d) if so, what are the findings thereof?

THE MINISTER OF STATE OF THE MINISTRY OF PLANNING AND PROGRAMME IMPLEMENTATION AND MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI SUKH RAM): (a) As against a national target for sale of 47,000 solar cookers during 1991-92, the achievement was 54,815. In Andhra Pradesh only 507 solar cookers were sold against a target of 3,806 solar cookers.

(b) The national target for the sale of solar cooker during the year 1992-93 has been fixed at 40,000 solar cookers and for Andhra Pradesh it is 1,000 solar cookers.

(c) and (d) A number of surveys have been conducted in the country by different State nodal agencies. As per the findings of these surveys solar cooker has been found to be very useful for supplementing the cooking energy requirement.

Development of Non Conventional energy sources in Andhra Pradesh pending for approval

4790. DR. YELAMANCHILI SIVAJI: Will the PRIME MINISTER be pleased to state:

(a) what are the various proposals of Andhra Pradesh for development of Non-conventional Energy Sources pending for approval; and

(b) at what stage of consideration are these schemes; and what are the on-going projects in Andhra Pradesh?

THE MINISTER OF STATE OF THE MINISTRY OF PLANNING AND PROGRAMME IMPLEMENTATION AND MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI SUKH RAM): (a) and (b) Various programmes and projects for harnessing and utilisation of non-conventional energy sources are implemented through State Govt. and its Implementing Agencies in the State of Andhra Pradesh. For implementation of extension programmes, such as, Biogas, Improved Chulha, Solar Cookers and Solar Thermal Energy Systems, physical targets are fixed in consultation with the State Govt. Nodal Implementing Agency in the beginning of the year. For taking up projects under demonstration/dissemination programmes in the area of Wind energy, Mini-Micro Hydel, Solar Photovoltaic and Bio-Energy, proposals are received from various State Govts. & Nodal Implementing Agencies. Depending on total number of projects received from various States, availability of financial resources, and merits of different proposals, approval of the projects of Andhra Pradesh, under consideration, would be accorded uring the year.

While systems & devices for cooking and heating energy are generally installed in the same financial year. projects for generation of power from Mini-Micro Hydro, Wind Energy, Solar Energy and Bio-Energy take more than a year's time and their duration vary from project to project. Status of installed, on-going and under consideration projects/systems for various types of non-conventional energy systems & devices for meeting cooking & heating energy requirements and generation of power, in the State of Andhra Pradesh, is given in the attached statement. (*See* below)

Recently, the State Govt. Implementing Agency has approached the Ministry of Non-Conventional Energy Sources to consider taking-up of installation of a few more Wind Pumps, Solar Photovoltaic Pumpsets and Solar Photovoltaic Power Plant. Detiled project report is yet to be Govt.